

Via Facsimile and U.S. Mail
Mail Stop 4720

May 7, 2010

David G.P. Allan
Chairman and Chief Executive Officer
YM Biosciences Inc.
5045 Orbitor Drive, Building 11, Suite 400
Mississauga, Ontario, L4W 4Y4
Canada

**Re: YM Biosciences Inc.
Form 20-F Filed September 25, 2009
File No. 001-32186**

Dear Mr. Allan:

We have reviewed your response letter filed April 12, 2010 and have the following comment. In our comment, we ask you to provide us with information to better understand your disclosure. Where it requests you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe that revised disclosure is necessary, explain the reason in your response. After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Item 4. Information on Company

1. In response to prior comment 1, you state that it is not possible at the present time to quantify the potential aggregate amount of milestone payments. It appears that the milestone payments are provided in Section 7.2 of your agreements with Kuhnli Pharmaceuticals and Innogene Kalbiotech Private Limited and Section 9.2 of your agreement with Daiichi Pharmaceutical. You also state that you have a confidential treatment request that includes the milestone payments of the agreement with Daiichi Pharmaceutical. Although there is a confidential treatment order for the individual milestone payments in your agreement with Daiichi

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Pharmaceutical, we do not grant confidential treatment for the potential aggregate amount of milestone payments of an agreement. We believe that the potential aggregate amount of milestone payments under an agreement is a material term of an agreement that should be disclosed in your filing. Please provide us with draft disclosure for your Form 20-F for the fiscal year ending June 30, 2010 that discloses the potential aggregate amount of milestone payments for your agreements with Kuhnle Pharmaceuticals, Innogene Kalbiotech Private Limited and Daiichi Pharmaceutical filed as Exhibits 4.26, 4.27 and 4.28, respectively.

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Please respond to this comment within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your response to our comment and provide any requested information. Detailed letters greatly facilitate our review. Please file your letter on EDGAR under the form type label CORRESP.

Please contact Jennifer Riegel, Staff Attorney at (202) 551-3575 or me at (202) 551-3715 with question on any of the comments.

Sincerely,

Jeff Riedler
Assistant Director

cc: Daniel M. Miller
Dorsey & Whitney LLP
777 Dunsmuir Street, Suite 1605
P.O. Box 10444, Pacific Centre
Vancouver BC V7Y 1K4
Canada